



## FCC Test Report

**FCC ID** : 2AAMVPTM100

**Applicant** : HITBOX(HK) LTD.  
RM#1719-1720A, A Bldg. Liwan Business Center, Qianhai Road,  
Nanshan District, Shenzhen, Guangdong, China

### Sample Description

**Product Name** : Wireless laser presenter

**Model No.** : PTM100

**Serial No.** : N/A

**Trademark** : N/A

**Receipt Date** : 2014-06-24

**Test Date** : 2014-06-24 to 2014-07-05

**Issue Date** : 2014-07-07

**Test Standard(s)** : FCC CFR Title 47 Part 15 Subpart C Section 15.249

**Conclusions** : PASSED\*

\*In the configuration tested, the EUT complied with the standards specified above.

**Test/Witness Engineer** : Jason Deng

**Approved & Authorized** : Winkay Wang

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.



## Contents

<b>CONTENTS .....</b>	<b>2</b>
<b>1. GENERAL INFORMATION .....</b>	<b>3</b>
1.1. Client Information .....	3
1.2. General Description of EUT (Equipment Under Test) .....	3
1.3. Block Diagram Showing The Configuration of System Tested .....	4
1.4. Description of Support Units .....	4
1.5. External I/O Cable .....	4
1.6. EUT Exercise .....	4
1.7. Description of Test Mode .....	4
1.8. Test Instruments List .....	5
1.9. Laboratory Location .....	6
<b>2. TEST SUMMARY .....</b>	<b>7</b>
<b>3. ANTENNA REQUIREMENT .....</b>	<b>8</b>
3.1. Standard Requirement .....	8
3.2. Antenna Connected Construction .....	8
<b>4. CONDUCTED EMISSION TEST .....</b>	<b>9</b>
4.1. Test Standard and Limit .....	9
4.2. Test Setup .....	9
4.3. Test Procedure .....	9
4.4. Test Data .....	10
<b>5. 20DB OCCUPY BANDWIDTH TEST .....</b>	<b>11</b>
5.1. Test Standard and Limit .....	11
5.2. Test Setup .....	11
5.3. Test Procedure .....	11
5.4. Test Data .....	11
<b>6. SPURIOUS EMISSION .....</b>	<b>13</b>
6.1. Test Standard and Limit .....	13
6.2. Test Setup .....	13
6.3. Test Procedure .....	14
6.4. Test Data .....	14



## 1. General Information

### 1.1. Client Information

Applicant	:	HITBOX(HK) LTD.
Address	:	RM#1719-1720A, A Bldg. Liwan Business Center, Qianhai Road, Nanshan District, Shenzhen, Guangdong, China
Manufacturer	:	HITBOX(HK) LTD.
Address	:	5th Floor, East Block D, Chengdexuan Technology Park, Second Industry Area of Lisonglang, Guangming New District, Shenzhen, China

### 1.2. General Description of EUT (Equipment Under Test)

Product Name	:	Wireless laser presenter	
Models No.	:	PTM100	
Serial No.	:	N/A	
Trademark	:	N/A	
Product Description	:	Operation Frequency:	2404MHz~2469MHz
		Frequency Distribution:	2404MHz, 2419MHz, 2454MHz, 2469MHz
		Number of Channel:	4 Channels
		Modulation Type:	GFSK
		Antenna Type:	Integral PCB Antenna
		Antenna Gain:	0 dBi
Power Supply	:	DC 1.5V from "AAA" battery	

**Note:**

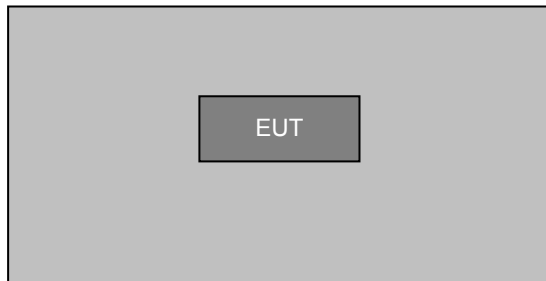
(1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

(2) Channel List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2404	02	2419	03	2454	04	2469



## 1.3. Block Diagram Showing The Configuration of System Tested



## 1.4. Description of Support Units

Name	Model	Serial Number	Manufacturer
Printer	HP1020	CNCJ410726	HP
LCD Monitor	G205HV	10306738385	ACER
PC	ASPIREM1830	PTSF90C00305005CAC3000	ACER
Keyboard	SK-9625	KBUSB1580500037E0100	ACER
Mouse	MS.11200.014	M-UAY-ACR2	ACER

## 1.5. External I/O Cable

N/A

## 1.6. EUT Exercise

The Transmitter was operated in the engineering operating mode. The TX frequency was fixed at 2404MHz, 2419MHz and 2469MHz which were for the purpose of the measurements.

## 1.7. Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.

Test Mode	Description
Transmitting mode	Keep the EUT in Transmitting mode with worst case data rate

In section 15.31(m), regards to the operating frequency range over 10MHz, the lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel as below:



# ATA Testing Technology Service Co., Ltd.

Report No.: ATA140624001F

Page: 5 of 20

Lowest Channel	CH01: 2404MHz
Middle Channel	CH17: 2419MHz
Highest Channel	CH34: 2469MHz

**Remark:** The sample was placed 0.8m above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.

## 1.8. Test Instruments List

Item	Test Equipment	Manufacturer	Model No.	Cal. Date	Cal. Due date
1	Bilog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	Mar. 28, 2014	Mar. 27, 2015
2	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	Mar. 28, 2014	Mar. 27, 2015
3	Coaxial Cable	N/A	N/A	Mar. 28, 2014	Mar. 27, 2015
4	Coaxial Cable	N/A	N/A	Mar. 28, 2014	Mar. 27, 2015
5	Coaxial cable	N/A	N/A	Mar. 28, 2014	Mar. 27, 2015
6	Coaxial Cable	N/A	N/A	Mar. 28, 2014	Mar. 27, 2015
7	Coaxial Cable	N/A	N/A	Mar. 28, 2014	Mar. 27, 2015
8	Amplifier (10kHz-1.3GHz)	HP	8447D	Mar. 28, 2014	Mar. 27, 2015
9	Amplifier (1GHz-18GHz)	Compliance Direction Systems Inc.	PAP-1G18	Mar. 28, 2014	Mar. 27, 2015
10	Pre-amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	Mar. 28, 2014	Mar. 27, 2015
11	Horn Antenna	ETS-LINDGREN	3160	Mar. 28, 2014	Mar. 27, 2015
12	Positioning Controller	UC	UC3000	N/A	N/A
13	Spectrum analyzer 9kHz-30GHz	Rohde & Schwarz	FSP	Mar. 28, 2014	Mar. 27, 2015
14	EMI Test Receiver	Rohde & Schwarz	ESPI	Mar. 28, 2014	Mar. 27, 2015
15	Loop antenna	Laplace instrument	RF300	Mar. 28, 2014	Mar. 27, 2015
16	Universal radio communication tester	Rhode & Schwarz	CMU200	Mar. 28, 2014	Mar. 27, 2015
17	Signal Analyzer	Rohde & Schwarz	FSIQ3	Mar. 28, 2014	Mar. 27, 2015



# ATA Testing Technology Service Co., Ltd.

Report No.: ATA140624001F

Page: 6 of 20

18	EMI Test Receiver	Rohde & Schwarz ESCI	ESCI	Mar. 28, 2014	Mar. 27, 2015
19	LISN	CHASE	MN2050D	Mar. 28, 2014	Mar. 27, 2015

## 1.9. Laboratory Location

Shenzhen Certification Technology Service Co., Ltd.

Address: 2F, Building B, East Area of Nanchang Second Industrial Zone, Gushu 2nd Road, Bao'an District, Shenzhen 518126, P.R. China

At the time of testing, the Laboratory is accredited. It is listed in the United States of American Federal Communications Commission (FCC), and the registration number is 197647.

Tel: 86-755-86375552 Fax: 86-755-26736857



## 2. Test Summary

Standard Section	Test Item	Judgment
15.203	Antenna Requirement	PASSED
15.207	Conducted Emission	N/A
15.215(c)	20dB Occupied Bandwidth	PASSED
15.249(d) & 15.205	Band Edge	PASSED
15.249(a)	Radiated Emission of the Fundamental Signal	PASSED
15.249(a)(d) & 15.209	Spurious Emission	PASSED
<b>Remark:</b> "N/A" is an abbreviation for Not Applicable.		

## 3. Antenna Requirement

### 3.1. Standard Requirement

#### 3.1.1 Test standard

FCC Part15 Section 15.203

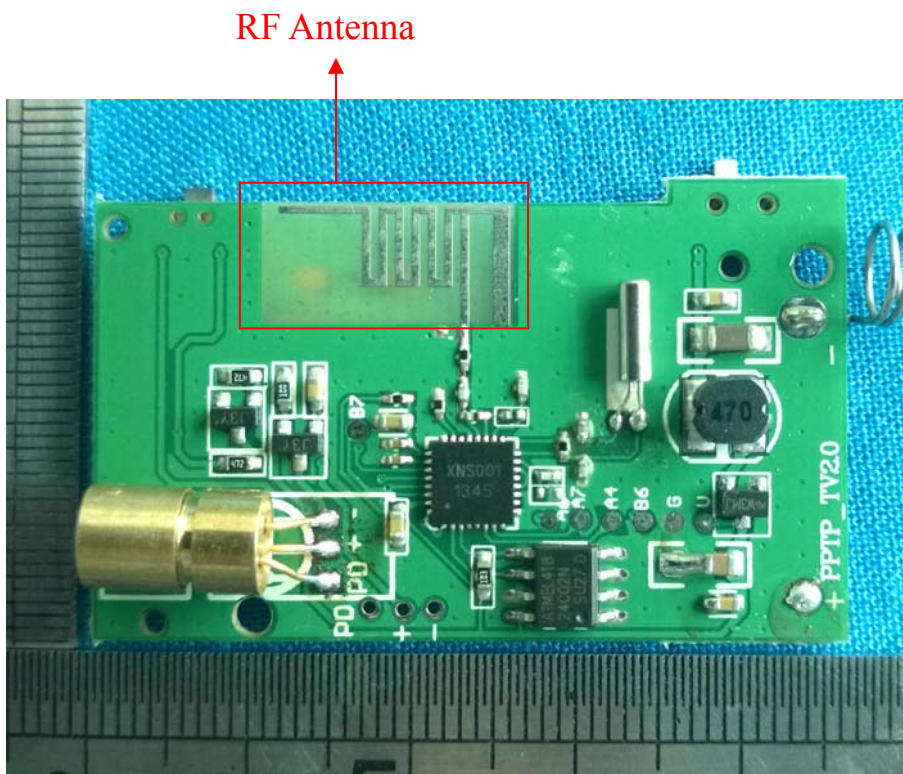
#### 3.1.2 Requirement

1) 15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

### 3.2. Antenna Connected Construction

The RF antenna is an integral antenna which permanently attached, and the best case gain of the antenna is 0 dBi. It complies with the standard requirement.





## 4. Conducted Emission Test

### 4.1. Test Standard and Limit

#### 4.1.1 Test Standard

FCC Part15 Section 15.207

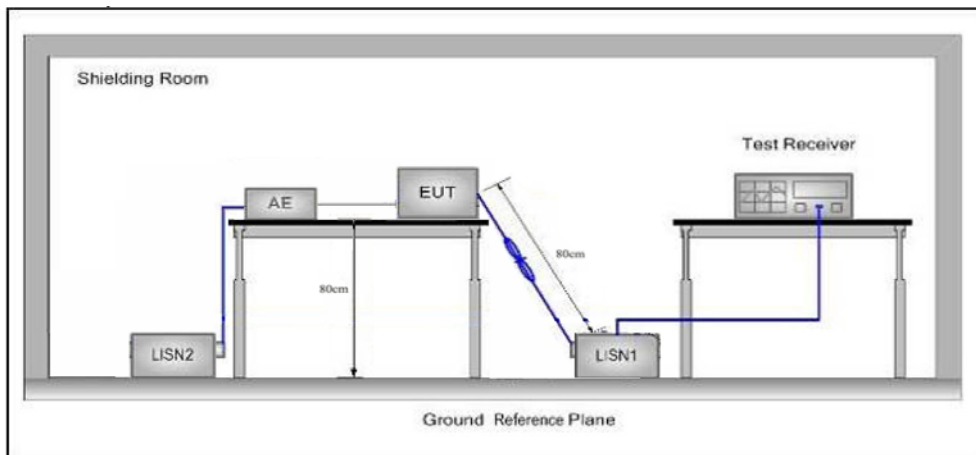
#### 4.1.2 Test Limit

Conducted Emission Test Limit

Frequency	Maximum RF Line Voltage (dB $\mu$ V)	
	Quasi-peak Level	Average Level
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
500kHz~5MHz	56	46
5MHz~30MHz	60	50

Remark: (1) \*Decreasing linearly with logarithm of the frequency.  
(2) The lower limit shall apply at the transition frequencies.

### 4.2. Test Setup



### 4.3. Test Procedure

- 1) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a  $50\ \Omega / 50\mu\text{H} + 5\ \Omega$  linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- 2) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane.

The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal



ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.

The Test Receiver setup: RBW=9kHz, VBW=30kHz, Sweep time= auto

#### 4.4. Test Data

N/A.

Remark: The EUT's power supply is DC 1.5V, from a "AAA" battery.



## 5. 20dB Occupy Bandwidth Test

### 5.1. Test Standard and Limit

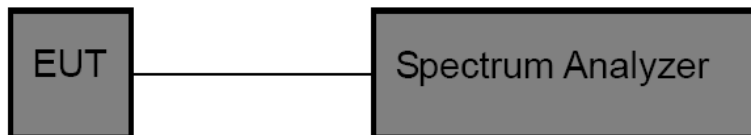
#### 5.1.1 Test Standard

FCC Part15 C Section 15.249 & 15.215(c)

#### 5.1.2 Test Limit

FCC Part 15 Subpart C(15.249)	
Test Item	Frequency Range (MHz)
Bandwidth	2400~2483.5MHz

### 5.2. Test Setup



### 5.3. Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Spectrum Setting:  
Bandwidth: RBW=100 kHz, VBW=300 kHz, span= 5MHz, detector= Peak

### 5.4. Test Data

Channel Number	Channel Frequency (MHz)	20dB Bandwidth (KHz)
CH 01	2404	290
CH 17	2419	310
CH 34	2469	300
Remark: Test plot as follows		



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Tel: (86)-0755-23498786 Fax: (86)-0755-29765125 [www.ata-test.com](http://www.ata-test.com)



## 6. Spurious Emission

### 6.1. Test Standard and Limit

#### 6.1.1 Test Standard

FCC Part15 C Section 15.249, 15.209

#### 6.1.2 Test Limit

Frequency (MHz)	Limit (dB $\mu$ V/m)	
	At 3m Distance	
30MHz~88MHz	40.00	Quasi-peak
88MHz~216MHz	43.50	Quasi-peak
216MHz~960MHz	46.00	Quasi-peak
960MHz~1000MHz	54.00	Quasi-peak
Above 1000MHz	54.00	Average
	74.00	Peak

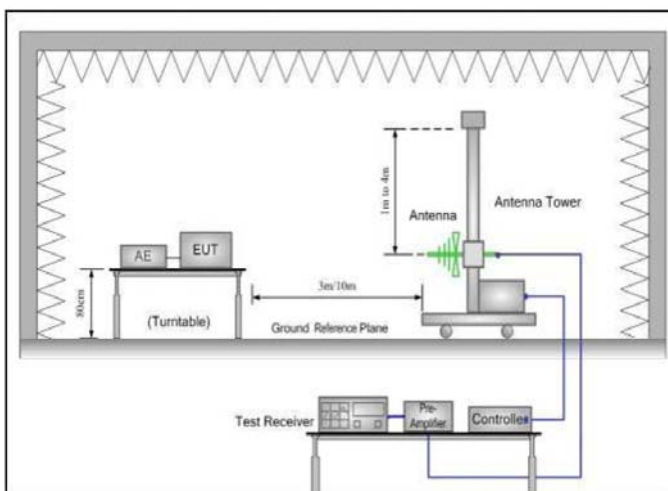
**Remark:** 1. The lower limit shall apply at the transition frequency.

### Radiated Emission of the Fundamental Signal Limit

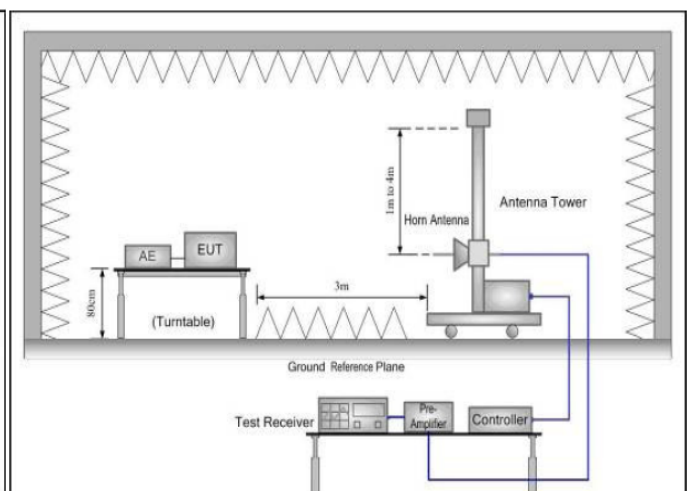
Frequency (MHz)	Limit (dB $\mu$ V/m)	
	At 3m Distance	
2400MHz~2483.5MHz	94.00	Average
	114.00	Peak

### 6.2. Test Setup

#### Below 1GHz



#### Above 1GHz





## 6.3. Test Procedure

- 1) The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- 2) The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- 3) The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 4) For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- 5) The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Receiver setup:

Frequency	Detector	RBW	VBW	Remark
30MHz~1GHz	Quasi-peak	120KHz	300KHz	QP Value
Above 1GHz	Peak	1MHz	3MHz	Peak Value
	Peak	1MHz	10Hz	Average Value

- 6) If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

## 6.4. Test Data

Remark:

1. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis is the worst case.
2. 9 kHz to 30 MHz is noise floor, so only shows the data of above 30MHz in this report.



# ATA Testing Technology Service Co., Ltd.

Report No.: ATA140624001F

Page: 15 of 20

## Radiated Emission Test Data of Fundamental Signal

EUT: Wireless laser presenter M/N: PTM100  
 Operating Condition: TX mode  
 Test Site: 3m chamber  
 Operator: Jason  
 Test Specification: DC 1.5V  
 Polarization: Horizontal & Vertical  
 Note Tem:23℃ Hum:50%

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.	Level
2404.00	57.63	27.58	5.67	0.00	90.88	114.00	-23.12	V	PEAK
2404.00	54.37	27.58	5.67	0.00	87.62	114.00	-26.38	H	PEAK
2419.00	55.13	27.56	5.68	0.00	88.37	114.00	-25.63	V	PEAK
2419.00	53.25	27.56	5.68	0.00	86.49	114.00	-27.51	H	PEAK
2469.00	56.46	27.53	5.70	0.00	89.69	114.00	-24.31	V	PEAK
2469.00	52.78	27.53	5.70	0.00	86.01	114.00	-27.99	H	PEAK
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.	Level
2404.00	55.32	27.58	5.67	0.00	88.57	94.00	-5.43	V	AVG.
2404.00	51.47	27.58	5.67	0.00	84.72	94.00	-9.28	H	AVG.
2419.00	54.16	27.56	5.68	0.00	87.40	94.00	-6.60	V	AVG.
2419.00	50.78	27.56	5.68	0.00	84.02	94.00	-9.98	H	AVG.
2469.00	52.36	27.53	5.70	0.00	85.59	94.00	-8.41	V	AVG.
2469.00	49.97	27.53	5.70	0.00	83.20	94.00	-10.80	H	AVG.

### Remark:

1. Final Level = Read Level + Antenna Factor + Cable Loss – Preamplifier Factor

According to the follow transmitter output power ( $P_t$ ) formula:

$$P_t = (E \times d)^2 / (30 \times g_t)$$

$P_t$  = transmitter output power in watts

$g_t$  = numeric gain of the transmitting antenna (unitless)

E = electric field strength in V/m

D = measurement distance in meters (m)

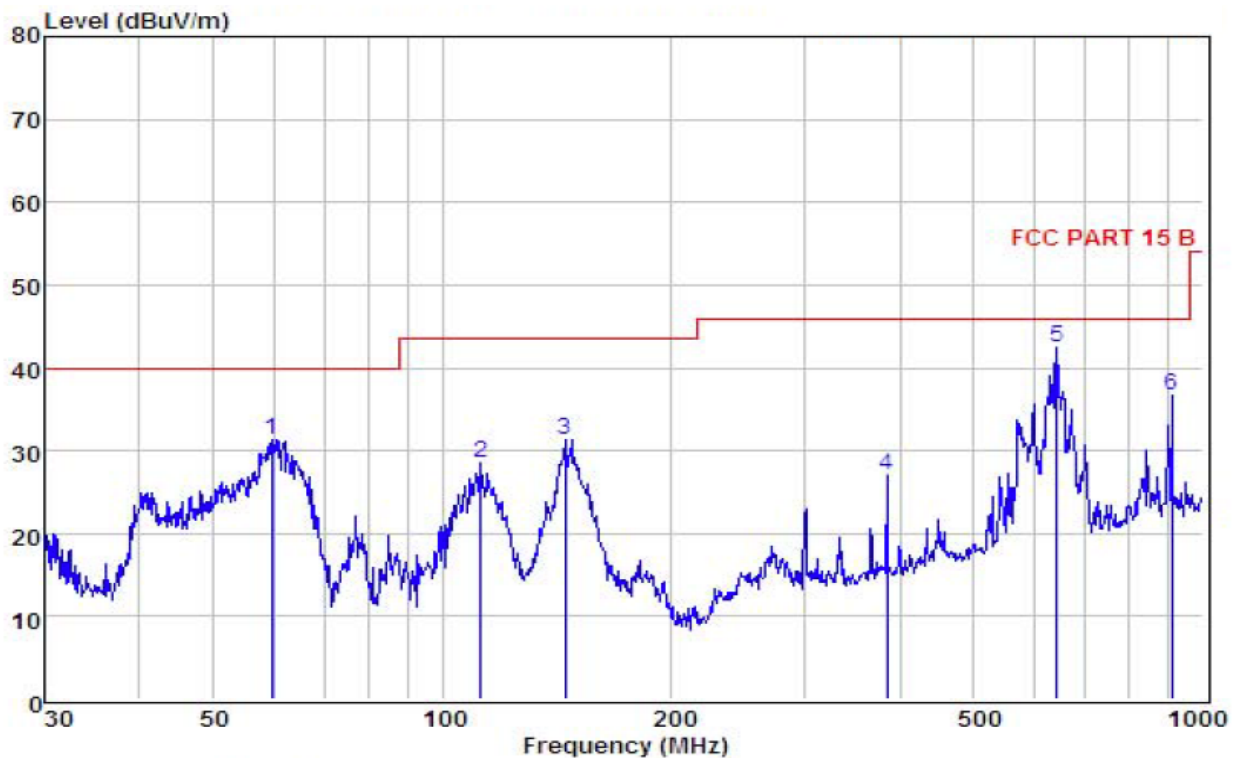
According to the above test data,  $E_{max} = 90.88 \text{ dBuV/m} = 0.035 \text{ V/m}$ ,  $d=3\text{m}$ ,  $g_t = 1.0$

$$P_t = (E \times d)^2 / (30 \times g_t) = P_t = (0.035 \times 3)^2 / (30 \times 1.0) = 0.0003675\text{W} = 0.3675\text{mW}$$



## Radiated Emission Test Data (Below 1GHz)

EUT: Wireless laser presenter M/N: PTM100  
Operating Condition: TX mode  
Test Site: 3m chamber  
Operator: Jason  
Test Specification: DC 1.5V  
Polarization: Horizontal & Vertical  
Note: Tem:23°C Hum:50%



Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	59.65	46.26	12.75	27.87	0.24	31.38	40.00	-8.62	Peak
2	112.52	43.51	11.50	26.87	0.47	28.61	43.50	-14.89	Peak
3	144.84	43.99	13.77	26.90	0.46	31.32	43.50	-12.18	Peak
4	383.93	36.20	14.48	24.38	0.81	27.11	46.00	-18.89	Peak
5	642.86	47.91	19.02	25.80	1.24	42.37	46.00	-3.63	Peak
6	909.67	38.97	21.77	25.65	1.49	36.58	46.00	-9.42	Peak

### Remark:

1. Final Level = Read Level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.



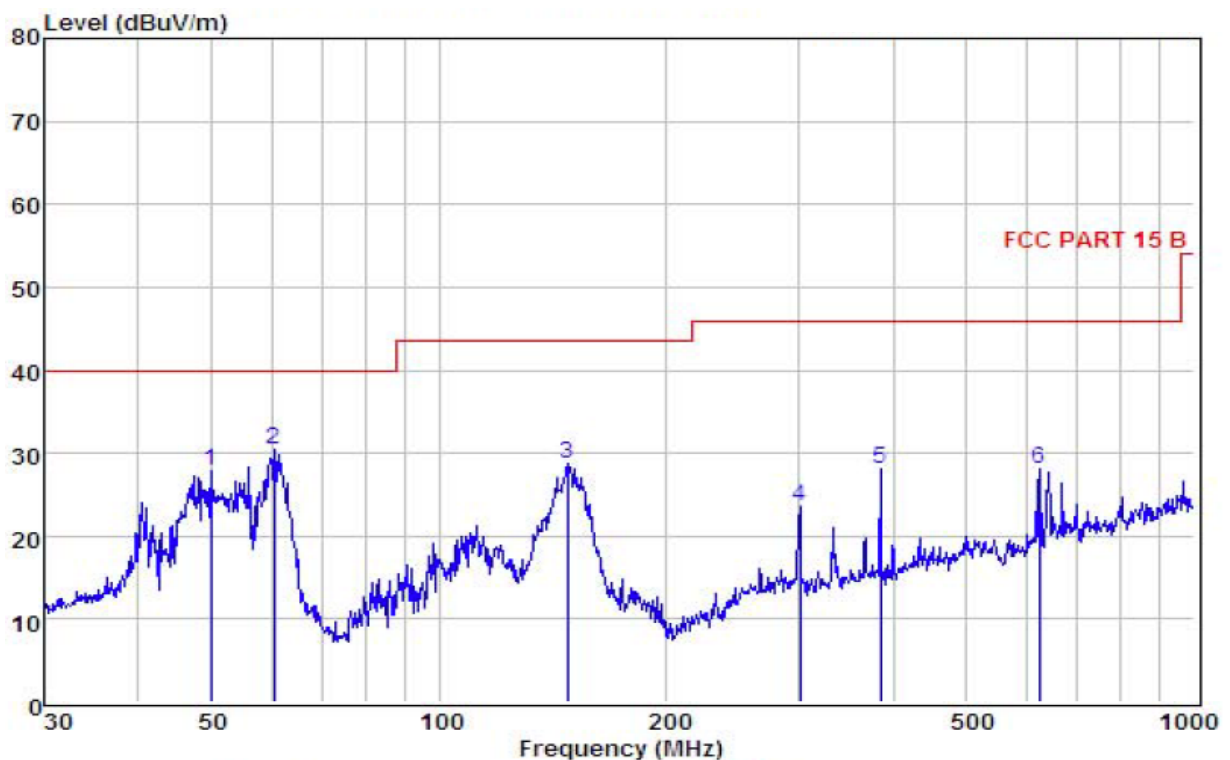


# ATA Testing Technology Service Co., Ltd.

Report No.: ATA140624001F

Page: 17 of 20

EUT: Wireless laser presenter M/N: PTM100  
Operating Condition: TX mode  
Test Site: 3m chamber  
Operator: Jason  
Test Specification: DC 1.5V  
Polarization: Horizontal & Vertical  
Note Tem:23°C Hum:50%



Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	49.88	40.00	13.54	25.82	0.10	27.82	40.00	-12.18	Peak
2	60.49	45.44	12.75	27.87	0.24	30.56	40.00	-9.44	Peak
3	147.92	41.37	14.03	26.90	0.32	28.82	43.50	-14.68	Peak
4	300.37	34.23	12.85	24.19	0.64	23.53	46.00	-22.47	Peak
5	383.93	37.10	14.48	24.38	0.81	28.01	46.00	-17.99	Peak
6	622.89	34.09	18.73	25.81	1.11	28.12	46.00	-17.88	Peak

## Remark:

- Final Level = Read Level + Antenna Factor + Cable Loss – Preamplifier Factor
- The emission levels of other frequencies are very lower than the limit and not show in test report.



# ATA Testing Technology Service Co., Ltd.

Report No.: ATA140624001F

Page: 18 of 20

## Radiated Emission Test Data (Above 1GHz)

Test mode: TX 2404MHz					Test channel: Lowest				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.	Level
4808.00	58.36	31.54	8.90	40.25	58.55	74.00	-15.45	V	PEAK
7212.00	49.33	36.49	10.59	41.25	55.16	74.00	-18.84	V	PEAK
9616.00	*					74.00		V	PEAK
12020.00	*					74.00		V	PEAK
14424.00	*					74.00		V	PEAK
16828.00	*					74.00		V	PEAK
4808.00	56.41	31.54	8.90	40.25	56.60	74.00	-17.40	H	PEAK
7212.00	46.54	36.49	10.59	41.25	52.37	74.00	-21.63	H	PEAK
9616.00	*					74.00		H	PEAK
12020.00	*					74.00		H	PEAK
14424.00	*					74.00		H	PEAK
16828.00	*					74.00		H	PEAK
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.	Level
4808.00	41.15	31.54	8.90	40.25	41.34	54.00	-12.66	V	AVG.
7212.00	35.23	36.49	10.59	41.25	41.06	54.00	-12.94	V	AVG.
9616.00	*					54.00		V	AVG.
12020.00	*					54.00		V	AVG.
14424.00	*					54.00		V	AVG.
16828.00	*					54.00		V	AVG.
4808.00	38.64	31.54	8.90	40.25	38.83	54.00	-15.17	H	AVG.
7212.00	33.21	36.49	10.59	41.25	39.04	54.00	-14.96	H	AVG.
9616.00	*					54.00		H	AVG.
12020.00	*					54.00		H	AVG.
14424.00	*					54.00		H	AVG.
16828.00	*					54.00		H	AVG.

### Remark:

1. Final Level = Read Level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “\*”, means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.



# ATA Testing Technology Service Co., Ltd.

Report No.: ATA140624001F

Page: 19 of 20

## Radiated Emission Test Data (Above 1GHz)

Test mode: TX 2419MHz					Test channel: Middle				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.	Level
4838.00	57.53	31.56	8.94	40.20	57.83	74.00	-16.17	V	PEAK
7257.00	48.62	36.47	10.63	41.19	54.53	74.00	-19.47	V	PEAK
9676.00	*					74.00		V	PEAK
12095.00	*					74.00		V	PEAK
14514.00	*					74.00		V	PEAK
16933.00	*					74.00		V	PEAK
4838.00	57.38	31.56	8.94	40.20	57.68	74.00	-16.32	H	PEAK
7257.00	46.81	36.47	10.63	41.19	52.72	74.00	-21.28	H	PEAK
9676.00	*					74.00		H	PEAK
12095.00	*					74.00		H	PEAK
14514.00	*					74.00		H	PEAK
16933.00	*					74.00		H	PEAK
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.	Level
4838.00	40.54	31.56	8.94	40.20	40.84	54.00	-13.16	V	AVG.
7257.00	34.24	36.47	10.63	41.19	40.15	54.00	-13.85	V	AVG.
9676.00	*					54.00		V	AVG.
12095.00	*					54.00		V	AVG.
14514.00	*					54.00		V	AVG.
16933.00	*					54.00		V	AVG.
4838.00	39.25	31.56	8.94	40.20	39.55	54.00	-14.45	H	AVG.
7257.00	34.63	36.47	10.63	41.19	40.54	54.00	-13.46	H	AVG.
9676.00	*					54.00		H	AVG.
12095.00	*					54.00		H	AVG.
14514.00	*					54.00		H	AVG.
16933.00	*					54.00		H	AVG.

### Remark:

1. Final Level = Read Level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “\*”, means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.



# ATA Testing Technology Service Co., Ltd.

Report No.: ATA140624001F

Page: 20 of 20

## Radiated Emission Test Data (Above 1GHz)

Test mode: TX 2469MHz					Test channel: Highest				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.	Level
4938.00	59.46	31.61	8.98	40.12	59.93	74.00	-14.07	V	PEAK
7407.00	51.31	36.53	10.69	41.13	57.40	74.00	-16.60	V	PEAK
9876.00	*					74.00		V	PEAK
12345.00	*					74.00		V	PEAK
14814.00	*					74.00		V	PEAK
17283.00	*					74.00		V	PEAK
4938.00	56.48	31.61	8.98	40.12	56.95	74.00	-17.05	H	PEAK
7407.00	48.32	36.53	10.69	41.13	54.41	74.00	-19.59	H	PEAK
9876.00	*					74.00		H	PEAK
12345.00	*					74.00		H	PEAK
14814.00	*					74.00		H	PEAK
17283.00	*					74.00		H	PEAK
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.	Level
4938.00	42.15	31.61	8.98	40.12	42.62	54.00	-11.38	V	AVG.
7407.00	36.70	36.53	10.69	41.13	42.79	54.00	-11.21	V	AVG.
9876.00	*					54.00		V	AVG.
12345.00	*					54.00		V	AVG.
14814.00	*					54.00		V	AVG.
17283.00	*					54.00		V	AVG.
4938.00	40.22	31.61	8.98	40.12	40.69	54.00	-13.31	H	AVG.
7407.00	33.89	36.53	10.69	41.13	39.98	54.00	-14.02	H	AVG.
9876.00	*					54.00		H	AVG.
12345.00	*					54.00		H	AVG.
14814.00	*					54.00		H	AVG.
17283.00	*					54.00		H	AVG.

### Remark:

1. Final Level = Read Level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “\*”, means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.